LPL RESEARCH
BOND MARKET PERSPECTIVES

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MBS: HIGH-QUALITY MIDDLE GROUND

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KEY TAKEAWAYS

In volatile, risk-off markets, when stocks and corporate bonds may lose value, MBS tend to outperform and aid in diversifying portfolios.

The Bloomberg Barclays MBS Index has a higher yield per unit of bond duration (price sensitivity to changes in interest rates) than the Treasury, corporate, and aggregate indexes, offering the potential for a more defensive posture in rising rate environments.

At almost 30% of the broad Bloomberg Barclays Aggregate Index, MBS are a high-quality option investors should be aware of.

An often overlooked sector, high-quality mortgage-backed securities (MBS) offer investors high credit quality, with a modest yield premium to Treasuries. MBS have more risk than Treasuries, but carry higher average ratings than corporate bonds, which rely on the credit worthiness of the underlying company for their backing. Serving as a reasonable middle ground between quality and credit makes the MBS sector appealing to investors who want the potential to mitigate price losses. In rising equity markets, MBS have historically outperformed Treasuries because of the additional yield. Conversely, more often than not, when investors have shed risky assets and the S&P 500 has moved down in a risk-off move, MBS have outperformed corporate bonds. An important distinction must be made between agency and non-agency (see callout box), especially as it relates to 2008. The "subprime" MBS bonds in 2008 largely fell into the non-agency category.

1 MBS HAS HISTORICALLY OFFERED MIDDLE GROUND BETWEEN TREASURIES AND CORPORATES

	Investment-Grade Corporates	MBS	Treasuries	S&P 500
Avg. Return When S&P Is Up*	8.7%	7.8%	7.0%	17.6%
Avg. Return When S&P Is Down*	5.4%	7.0%	9.5%	-13.5%
2016	6%	2%	1%	12%
2015	-1%	2%	1%	1%
2014	7%	6%	5%	14%
2013	-2%	-1%	-3%	32%
2012	10%	3%	2%	16%
2011	8%	6%	10%	2%
2010	9%	5%	6%	15%
2009	19%	6%	-4%	26%
2008	-5%	8%	14%	-37%
2007	5%	7%	9%	6%
2006	4%	5%	3%	16%

Source: LPL Research, Bloomberg 02/03/17

*Average yearly returns from 1977–2016.

MBS: Bloomberg Barclays Mortgage Backed Bonds (MBS) Index; Investment-Grade Corporates: Bloomberg Barclays Corporate Index; Treasuries: Bloomberg Barclays U.S. Treasuries Index

All indexes are unmanaged and cannot be invested into directly. Past performance is no guarantee of future results.

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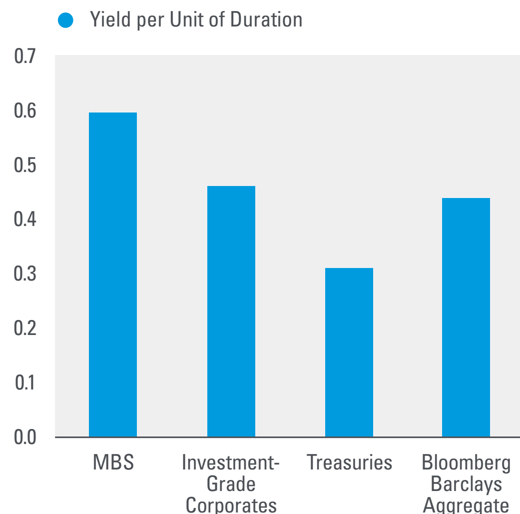
PERFORMANCE

The Bloomberg Barclays Mortgage Backed Bonds (MBS) Index outperformed the Bloomberg Barclays U.S. Treasuries Index in most years where the Treasury index return was negative. In 2009 for example, the S&P 500 Index rebounded from its 37% loss the prior year to post a return of 26% [Figure 1]. In bullish stock markets like this, investors shed high-quality, higher priced assets in search of greater returns. That year, the AAA Treasury index lost 4%, while the lower-quality MBS gained 6%. With the exception of 2010, this pattern has held in all years where stocks have done better; MBS have beaten Treasuries. Conversely, when the lower-rated Bloomberg Barclays Corporate Index return was negative for the year (in bearish stock market environments) the Bloomberg Barclays MBS Index outperformed corporates. This was evident in 2008, when corporate bonds struggled. Corporate bonds lost 5%, while MBS returned 8% and Treasuries returned 14%. Clearly, risk-off markets are favorable for the higher-quality MBS sector.

2 MBS OFFERS HIGH RATIO OF HIGH-QUALITY YIELD RELATIVE TO INTEREST RATE SENSITIVITY



Source: LPL Research, Bloomberg 02/03/17

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Duration is a measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates. It is expressed as a number of years.

MORTGAGE-BACKED SECURITIES

MBS are bonds that can be backed by a pool of residential mortgages. Although varying in structure, generally they are created by a government entity or a financial institution after loans are extended to homeowners. Principal and interest payments from the mortgages are used to pay interest and principal to the bondholders. MBS can be broken down into two broad issuer groups: agency, those issued by government agencies such as Ginnie Mae (GNMA) and Fannie Mae (FNMA), and non-agency, those issued by financial institutions. The difference between the two is the overall credit quality. Agency MBS are AAA rated due to the backing of the government agency, whereas non-agency MBS can vary in rating due to the credit quality of the different issuers.

YIELD

One of the major advantages for MBS relative to other bond sectors is their higher yield per unit of interest rate risk (yield per unit of duration). Simply calculated as the yield of the index divided by the duration, this measures the percentage increase in rates that the investment can withstand before interest income is overwhelmed by a decline in principal. For example, the Bloomberg Barclays MBS Index has a current yield of 2.92% and duration of 4.91. Dividing the two gets 59 basis points of yield protection. In other words, to offset the yield of the investment, it would take a 60 basis point rise in interest rates before losses are incurred, over a one-year period. The yield advantage the MBS Index currently holds over

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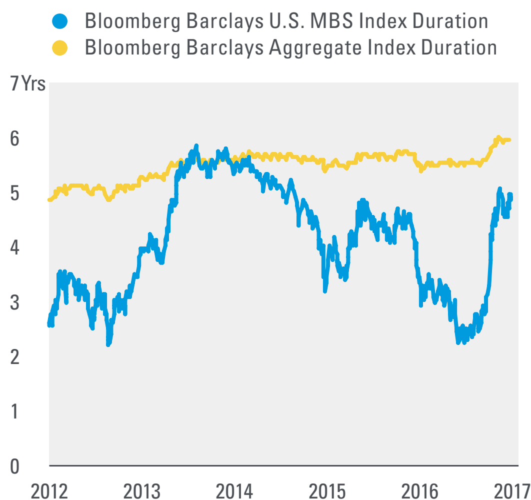
corporates is 14 basis points, 31 basis points better than Treasuries, and 16 basis points higher than the Bloomberg Barclays Aggregate Index [Figure 2]. Since the MBS Index is higher yielding, investors are being compensated on a yield per unit of duration basis, allowing for more price protection if rates continue to rise.

RISKS

With interest rates expected to be range bound to slightly higher in 2017, one major risk associated with MBS, prepayment risk, is essentially taken off the table. Prepayment risk is prevalent when homeowners refinance their loans to take advantage of lower mortgage rates, resulting in additional principal payments to bondholders. Bondholders usually reinvest these cash flows, but lower prevailing rates means the cash would likely be reinvested at a lower rate.

Theoretically, as mortgage rates rise, prepayments will fall given that homeowners are content to keep their lower rates. As prepayments fall, the bond takes longer to pay off, increasing duration (price sensitivity to changes in interest rates). Bond prices then cheapen to compensate investors for the duration extension [Figure 3], so it is important to buy bonds at the cheapest possible price to shield against losses.

3 DURATION OF MBS HAS PICKED UP RECENTLY, BUT IS STILL BELOW BROAD HIGH-QUALITY MARKET



Source: LPL Research, Bloomberg 02/03/17

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Default risk is a concern as well. In this event, house payments become too expensive for some homeowners to maintain, causing a default on payments, which can negatively impact the price of MBS. After the 2008 housing crisis, rules were instituted to help borrowers avoid defaulting. Tighter lending standards, changes in the loan-to-value calculations, and the implementation of strict due diligence rules have helped to reduce the risk of widespread defaults.

Last, a risk that we are closely monitoring comes from comments from the Federal Reserve (Fed) related to the potential downsizing of its balance sheet. The Fed holds a large portfolio of agency MBS as a result of its quantitative easing program that ran from 2008 through 2014, so any liquidation or downsizing would add additional bond supply to the market and act as a headwind. Actual reduction appears unlikely for now, but investors should be aware of this potential risk.

CONCLUSION

The fourth quarter of 2016 was difficult for fixed income investors, with most sectors giving back their entire yearly gains as rates increased post-election. The negative tone in the bond market has carried over into 2017, and as such, fixed income investors are nervous and looking for defensive sectors. While searching for ways to diversify portfolios, MBS can provide suitable investors with a vehicle to diversify fixed income allocations and potentially serve as a defensive lever in rising rate environments.

Given the risk of increased market volatility, and rates remaining range bound to higher, the above-average credit quality of the MBS sector should

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allow for greater liquidity. Prices are cheaper after the backup in rates in the fourth quarter of 2016; therefore, investors have some price protection against the extension risk of their bond duration. Relative to Treasury bonds and some corporates, MBS may offer a better risk/reward tradeoff and an attractive alternative for conservative investors who would like to manage some interest rate and credit risk. ■

IMPORTANT DISCLOSURES

The opinions voiced in this material are for general information only and are not intended to provide specific advice or recommendations for any individual. To determine which investment(s) may be appropriate for you, consult your financial advisor prior to investing. All performance reference is historical and is no guarantee of future results. All indexes are unmanaged and cannot be invested into directly.

The economic forecasts set forth in the presentation may not develop as predicted and there can be no guarantee that strategies promoted will be successful.

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values and yields will decline as interest rates rise, and bonds are subject to availability and change in price.

There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not ensure against market risk.

Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. However, the value of fund shares is not guaranteed and will fluctuate.

Corporate bonds are considered higher risk than government bonds but normally offer a higher yield and are subject to market, interest rate, and credit risk as well as additional risks based on the quality of issuer coupon rate, price, yield, maturity, and redemption features.

Mortgage-backed securities are subject to credit, default, prepayment risk that acts much like call risk when you get your principal back sooner than the stated maturity, extension risk, the opposite of prepayment risk, market and interest rate risk.

The credit ratings are published rankings based on detailed financial analyses by a credit bureau specifically as it relates the bond issue's ability to meet debt obligations. The highest rating is AAA, and the lowest is D. Securities with credit ratings of BBB and above are considered investment grade.

INDEX DEFINITIONS

The Bloomberg Barclays U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment-grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS, and CMBS (agency and non-agency).

The Bloomberg Barclays Mortgage Backed Bonds (MBS) Index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid (ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

The Bloomberg Barclays Corporate Investment Grade Credit Index is a broad-based benchmark that measures the investment-grade, U.S. dollar-denominated, fixed rate, taxable corporate bond market. It includes USD-denominated securities publicly issued by U.S. and non-U.S. industrial, utility, and financial issuers that meet specified maturity, liquidity, and quality requirements.

The Bloomberg Barclays U.S. Treasury Index is an unmanaged index of public debt obligations of the U.S. Treasury with a remaining maturity of one year or more. The index does not include T-bills (due to the maturity constraint), zero coupon bonds (strips), or Treasury Inflation Protected Securities (TIPS). (The long and the intermediate are subindexes of the U.S. Treasury Index, based on duration length.)

The Standard & Poor's 500 Index is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

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